

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): ~~Phase~~A phase shifting wavefront superimposition method, in particular a phase shifting interferometry method, for wavefront measurement of optical imaging systems, wherein

———~~the~~registering intensities (I_n) of superimposition patterns of object wavefronts and reference wavefronts produced successively in time with respective phase shifting by ~~predefinable~~predefined phase steps (φ_n) ~~are registered~~ for a respectively ~~predefinable~~predefined location and;

from the registered intensities, determining an object-induced phase difference (φ) between object wavefront and reference wavefront ~~is determined~~ for the respective location;

———determining phase shift errors ($\delta\varphi_n$) in the superimposition patterns produced successively ~~being determined~~ by means of a spatial superimposition pattern evaluation; and

~~taken into account correctively in~~ determining the object-induced phase difference (φ) by correctively utilizing the determined phase shift errors.

2. (currently amended): ~~Phase~~The phase shifting wavefront superimposition method according to claim 1, ~~further characterized in that~~wherein predefined phase jumps in ~~aan~~ at least

PRELIMINARY AMENDMENT
USSN 10/697,239

one-dimensionally ~~or multi-dimensionally~~ periodic structure are used to provide the object wavefronts or reference wavefronts in the determination of the phase ~~step~~shift errors.

3. (currently amended): ~~Phase~~The phase shifting wavefront superimposition method according to claim 1 or 2, ~~further characterized in that~~wherein, in order to ~~take corrective account of~~correctively utilize the phase ~~step~~shift errors in the determination of the object-induced phase difference, compensating correction contributions ($\delta\phi_n$) to apodisation weights (ϕ_n) are determined ~~which are~~and used in a relationship equation of the object-induced phase difference as a function of the superimposition pattern intensity.

4. (new): The phase shifting wavefront superimposition method according to claim 1 or 2, wherein the method is configured as a phase shifting interferometry method for wavefront measurement of an optical imaging system.